Remarks

The Applicants note the rejection of Claim 4 under 35 U.S.C. §112 and the Examiner's helpful comments. The Applicants have amended Claim 4 in Line 2 to change the 4 to 5. Thus, all five conditions are now accounted for. Withdrawal of the rejection is respectfully requested.

The Applicants note the rejection of Claims 1, 2, 4 and 5 under 35 U.S.C. §103 over the hypothetical combination of Veiga with JP '740. The Applicants also note with appreciation the Examiner's helpful comments concerning the hypothetical application of the various references to those rejected claims. However, the Applicants respectfully submit that those rejected claims are patentable over both Veiga and JP '740 whether taken individually or collectively.

The Applicants have amended Claim 1 to further clarify the differences of the subject matter in that claim over JP '740 in particular. In that regard, Claim 1 now recites that the number of entanglements in the filaments of warp yarn and weft yarn in the base fabric is at most 3/m. Support may be found in the Applicants' Specification on Page 24 at Lines 9-11, for example. This particular aspect is neither disclosed, taught nor suggested by JP '740. Moreover, the manner in which this is achieved is neither disclosed, taught nor suggested by JP '740. Thus, the Applicants respectfully submit that JP '740 is actually non-enabling with respect to the Applicants' subject matter recited in Claim 1.

The Applicants have discovered that there is a combination of steps in producing fabrics of the type recited in Claim 1 that provide the unique characteristics set forth in Claim 1. In particular, the weft and warp yarns are subjected to entanglement treatment before they are wound up so that they may be well bundled. Such entanglement treatment may be performed by applying high pressure air to the running yarns in the direction that crosses the yarns in the usual manner. The increase in the number of entanglements formed increases the bundlability of the yarns. This is

favorable since the inline run ability of the yarns in warping or weaving them into the fabrics is good and favorable. Additionally, those skilled in the art know that keeping the number of entanglements in the yarns when they are strongly stretched makes it possible to improve the weaving process. In other words, those skilled in the art seek to maintain a large number of entanglements in the yarn of the base fabric.

However, the Applicants have discovered that it is desirable that the entanglements of the yarns are untangled and the number of entanglements of the yarns still remaining in the base fabric is reduced.

If a large number of entanglements remain in the base fabric, then the yarns that constitute the fabric will be twisted in selected locations in the fabric and the fabric can not satisfy the specific range of the total average Horizontal Index that is an advantageous feature of the subject matter of Claim 1. As a consequence, the Applicants have discovered that the initial number of entanglements to be given of the yarns is from 3–20/m as helpfully noted by the Examiner in the Official Action.

However, there is an important difference in that the Applicants affirmatively remove those entanglements prior to or just at the time of weaving the warp and weft yarns so that the number of entanglements in the fibers of the base fabric is at most 3/m both in the warp and in the weft yarns.

The advantages of the lack of entanglements in the fabric can be seen by reference to Table 1 in the examples and comparative examples. In particular, Examples 1-4 and 7-8 had no entanglements in the fabric while Examples 5 and 6 had two entanglements in the fabric. This is sharply contrasted to Comparative Examples 3 and 4 with 15 and 15 entanglements in the fabric, respectively. The problem with this is a lowered Horizontal Index which is outside of the claimed Horizontal Index range.

As previously described, the Applicants have observed that when coating fabrics, the degree

of stiffness increases. When making airbags from the coated fabric, their thickness increases. Thus, it is not possible to obtain compact airbags. This is particularly described in paragraph [0044] of JP '740 that "non-coated airbags are favorable if you hope to get airbags which are lightweight, flexible, and have low permeability." According to that description, those skilled in the art understand that it is not possible to obtain flexible and compact airbags when coating the fabric described in JP '740. That is, the fabric described in JP '740 is the same as Comparative Example 3 and 4 of the Applicants' Specification because they have a large number of entanglements and do not satisfy the specific range of the total average Horizontal Index.

Additionally, those skilled in the art know that the flexibility of the fabric decreases if such a fabric is coated. When airbags are made from the coated fabric, it is not possible to obtain airbags whose size is compact. However, in the airbags of the rejected claims, it is possible to have coated-airbags whose size is the same as non-coated-airbags. In particular, Example 1 and Comparative Example 7 show the difference in the amount of the resin, but the degree of stiffness and the thickness of airbags are nearly same. The permeability of Comparative Example 7, which has a small amount of resin, is not 0. Those skilled in the art know that the texture density should be increased to decrease the permeability of such non-coated airbags. However, they also know that it is not possible to obtain airbags which have the same degree of stiffness if the texture density is increased.

The Applicants obtain coated-airbags which are both compact and have low permeability similar to non-coated airbags. Such coated-airbags have a few entanglements, satisfy the specific range of the total average Horizontal Index, and have a small amount of resin.

In any event, the Applicants respectfully submit that JP '740 fails to disclose, teach or suggest the above process and, therefore, inherently fails to disclose, teach or suggest the claimed number of

entanglements in the base fabric as being at most 3/m. This can particularly be seen by reference to paragraph [0036] as helpfully identified by the Examiner wherein the yarns may be subjected to an entanglement process. This is standard procedure in art. However, what is not standard in the art and what is not disclosed, taught or suggested by JP '740 is the affirmative removal of entanglements at the time of/slightly prior to weaving the base fabric. JP '740 simply does not have any appreciation for that step and, therefore, inherently fails to disclose, teach or suggest it. The Applicants have carefully scrutinized the entirety of the JP '740 disclosure and can find no reference at all to the thought of, much less the teachings or suggestions as how to remove entanglements from yarns prior to/just at the time of weaving the base fabric. Such disclosure simply does not exist in JP '740. As a consequence, the Applicants respectfully submit that JP '740 fails to teach or suggest not only the idea, but the means of achieving a number of entanglements in the filaments of the warp yarn and the weft yarn in the base fabric as being at most 3/m. Therefore, the Applicants respectfully submit that JP '740 is inapplicable both literally and inherently.

The Applicants respectfully submit that in the absence of the above-mentioned teachings, the base fabric would not inherently contain the number of entanglements recited in Claim 1. Instead, it would likely contain a far larger number such as that described in comparative Examples 3 and 4 mentioned above. It must be kept in mind that for inherency to apply, that the prior art must "necessarily" result in the claimed characteristic. The Applicants have demonstrated that the base fabric of JP '740 does not "necessarily" contain at most 3/m entanglements. There is a great likelihood that the number of entanglements would greatly exceed that number since JP '740 provides for the entanglement of the yarns, but no provision for untangling the yarns. The Applicants, therefore, respectfully submit that JP '740 is inapplicable.

Hypothetically combining Veiga with JP '740 for the proposition of applying a coating fails

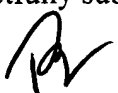
to cure the deficiencies set forth above with respect to JP '740. Therefore, even if one skilled in the art were to hypothetically coat the fabric in accordance with the teachings of Veiga or coat the '740 teaching of fat based fabric according to the teachings of Veiga, the resulting fabric would still fail to teach or suggest that the number of entanglements in the filaments of warp yarn and weft yarn in the base fabric is at most 3/m. Withdrawal of the rejection is respectfully requested.

The Applicants note the rejection of Claims 1, 2, 4, 5 and 11 under 35 U.S.C. §103 over the newly cited Li reference in combination with JP '740. The Applicants have already established the inapplicability of '740. Li is cited for the teachings concerning the coating. Again, even if one skilled in the art were to apply a coating of Li onto a fabric of JP '740, the resulting combination would still fail to teach or suggest the number of entanglements in the filaments of warp yarn and weft yarn in the base fabric being at most 3/m as specifically recited in independent Claims 1 and 11. Withdrawal of that rejection is also respectfully requested.

The Applicants respectfully request that the above amendments be entered into the official file inasmuch as they are made directly to address and issue raised by the Examiner and already considered on the merits. The Applicants also respectfully submit that at least the amendment to Claim 4 simplifies matters for appeal and materially advances the application towards allowance. Also, the Applicants respectfully submit that in view of the failure of JP '740 to teach or suggest the aspect entered into independent Claims 1 and 11 that the amendments now place the claims in condition for allowance.

In light of the foregoing, the Applicants respectfully submit that the entire application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,



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